



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,950	08/18/2003	Kazuhito Matsui	2842.17US01	4151
7590	03/02/2007	Douglas J. Christensen, Esq. Patterson, Thuente, Skaar & Christensen, P.A. 80 South Eighth Street 4800 IDS Center Minneapolis, MN 55402-2100	EXAMINER KRAUSE, JUSTIN MITCHELL	
			ART UNIT 3682	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/642,950	MATSUI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Justin Krause	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 14 February 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-3,5-11,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,5-11,21,22 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 16, 2007 has been entered.

### ***Claim Rejections - 35 USC § 112***

Claims 1-3, 5-11, 21, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase "in both directions along the first and second manipulation axes" is indefinite because it is unclear what the directions are referring to. The phrase is readable in more than one way, for example, the movement along the axis from its center position, or along the first axis and along the second axis.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1-3, 5-7, 9, 10, 21 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Syamoto et al (US 2004/0237692).

Syamoto discloses a shifting device comprising:

- A housing (12)
- A shift lever (15) supported by the housing wherein the shift lever is moved along at least a first manipulation axis and a second manipulation axis to select one of shift positions (paragraph 0005), the first and second manipulation axes extending in different directions (See Fig 1, element 14)

- A non-contact type position detecting mechanism, capable of detecting changes in the position of the shift lever in both directions along the first and second manipulation axes, formed as a single unit (20) for detecting a shift position selected by the shift lever, wherein the relative positions between the detecting devices (63) and a single detection objective device (62) are variable, wherein the position detecting mechanism detects the selected shift position according to the relative positions (paragraph 0032-0035).

- A moving mechanism (23), which moves at least one of the group of the detecting devices and the detection objective device at least along a first movement axis and a second movement axis, the first and second movement axes extending in different directions.

- the moving mechanism includes a first holder (55) and a second holder (64) wherein the first holder accommodates one of the group of detecting devices and the detection objective device and allows the accommodated devices or device to move along the first movement axis and wherein the second holder accommodates the first holder, and allows the first holder to move along the second movement axis.

Regarding claim 2, each detecting device outputs two different types of signals according to the relative positions between the detecting devices and the detection objective device wherein the detection objective device is formed such that a combination pattern of signals outputted by the detecting devices is changed according to the selected shift position and if one of the detecting devices malfunctions, the combination pattern of the remainder of the detecting devices is changed according to the selected shift position. (Paragraph 0035)

Regarding claim 3, the detection objective device is formed such that the signals outputted when the shift lever is at a forward position (+/-) are different from the signals outputted when the shift lever is at a reverse position (Paragraphs 0035).

Regarding claim 5, when the shift lever is moved along the first manipulation axis (front and rear, Fig 2) the detecting devices or the detection objective device are moved along the first movement axis in the first holder.

Regarding claim 6, the first manipulation axis is parallel to the first manipulation axis.

Regarding claim 7, when the shift lever is moved along the second manipulation axis, the first holder is moved relative to the second holder along the second movement axis.

Regarding claim 9, when the shift lever is moved along the first manipulation axis, the moving mechanism moves at least one of the group of the detecting devices and the detection objective device along the first movement axis and when the shift lever is moved along the second manipulation axis, the moving mechanism moves at least one of the group of the detecting devices and the detection objective device along the second movement axis.

Regarding claim 10, the position detecting mechanism is of a magnetic position detecting mechanism. (Paragraph 0035)

Regarding claims 21 and 22, according to the movement of the shift lever, the moving mechanism moves the detection objective device in a single plane including the first and second movement axes.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Syamoto as applied to claim 7 above, further in view of Skogward (US Patent 6,415,677).

Syamoto does not disclose a second manipulation axis that is different than the second movement axis.

Skogward teaches a shifter with a plate 111, which moves vertically (arrow 1') when the shifter (103) is rotated (arrow 1) to change the orientation of the detectors in order to correspond with shift positions. (see fig 1 and 5, Col 4 lines 5-16, Col 5, lines 40-54)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Syamoto and convert rotational motion of the shift lever to vertical motion of the detecting devices or detection objective device for the desired purpose of alteration of the orientation of the detectors with respect to the detection objective to correspond with selection of different shift positions as taught by Skogward.

Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Syamoto in view of Fujinuma (US 2002/0056334).

Syamoto discloses all of the claimed subject matter as described above including the detection objective device being a magnet (62).

Syamoto does not disclose the detecting devices as being hall elements.

Fujinuma teaches that a hall element or the like may be used to sense magnetism. (Paragraph 0046)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Syamoto and use hall elements for the desired purpose

of detecting magnetism from the magnets. Syamoto uses a MRE (magneto-resistive effect element), which operates in a similar manner to a hall element as taught by Fujinuma.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMK  
Jork  
2/28/07

  
Thomas R. Harmon  
Primary Examiner